WHAT IS CLAIMED IS:

1. A semiconductor device provided with a gate electrode formed so that the gate electrode ranges from a first gate oxide film formed on a first conductive type of semiconductor layer to a second gate oxide film, a second conductive type of source region formed so that the source region is adjacent to the gate electrode, a second conductive type of drain region formed in a position apart from the gate electrode and a second conductive type of drift region formed so that the drift region surrounds the drain region, wherein:

a second conductive type of impurities layer is formed so that it is adjacent to the drain region.

2. A semiconductor device according to Claim 1, wherein:

said second conductive type of impurities layer is formed so that it ranges at least from one end of the drain region to one end of the gate electrode.

3. A semiconductor device according to Claim 2, wherein:

said second conductive type of impurities layer is formed in a surface of the drift region so that it is located between one end of the drain region and one end of the gate electrode.

4. A method of manufacturing a semiconductor device, comprising:

a process for forming a second conductive type of layer

by applying impurities of a second conductive type into/in a first conductive type of semiconductor layer;

a process for forming an oxidation-resistant film in a predetermined region on the semiconductor layer;

a process for forming a resist film in a predetermined region on the semiconductor layer including the oxidation-resistant film;

a process for forming an ion implanted layer in a predetermined region on the semiconductor layer by implanting impurities of a second conductive type using the oxidation-resistant film and the resist film as a mask;

a process for forming a selective oxide film by locally oxidizing the semiconductor layer using the oxidation-resistant film as a mask after the resist film is removed and forming a second conductive type of impurities layer by diffusing the ion implanted layer;

a process for forming a gate oxide film by thermally oxidizing the semiconductor layer using the selective oxide film as a mask;

a process for forming a gate electrode so that the gate electrode ranges from the gate oxide film to the selective oxide film; and

a process for forming a second conductive type of source region so that the source region is adjacent to the gate electrode by implanting impurities of a second conductive type

using the gate electrode and the selective oxide film as a mask and forming a second conductive type of drain region in a position apart from the gate electrode.

5. A method of manufacturing a semiconductor device according to Claim 4, wherein:

said process for forming the second conductive type of impurities layer is the same process as a channel stopper layer forming process for forming a channel stopper layer under an element isolation film.

6. A method of manufacturing a semiconductor device according to Claim 5, wherein:

a process for forming a second conductive type of layer comprises a steps of implanting and diffusing impurities of a second conductive type into/in a first conductive type of semiconductor layer;

7. A semiconductor device comprising a gate electrode formed on a semiconductor layer of a first conduction type through a gate oxide film , a highly doped source region of a second conduction type formed to be adjacent to the gate electrode, a highly doped drain region of the second conduction type formed at a position apart from said gate electrode and a drift region of the second conduction type formed so as to surround said drain region,

wherein an impurity region of the second conduction type which is more lightly doped than said highly doped drain region

and is more highly doped than said drift region is formed so as to surround the vicinity of said highly doped drain region.

8. A semiconductor device according to claim 1, comprising a gate electrode formed to extend from a first gate oxide film formed a semiconductor layer of the first conduction type onto a second gate oxide film having a larger thickness than that of said first gate oxide film, a source region of a second conduction type formed to be adjacent to the gate electrode, a drain region of the second conduction type formed at a position apart from said gate electrode and a drift region of the second conduction type formed so as to surround said drain region,

wherein an impurity region of the second conduction type which is more lightly doped than said drain region and is more highly doped than said drift region is formed so as to surround the vicinity of said highly doped drain region.

9. A semiconductor device according to claim 8, wherein said impurity region of the second conduction type is formed to extend from at least one end of said drain region and to be adjacent to one end of said gate electrode.

10. A semiconductor device according to claim 8, wherein said impurity region of the second conduction type is formed evenly in depth so as to be adjacent to one end of sad gate electrode through said first gate oxide film and to surround the vicinity of said drain region.

11. A method of manufacturing a semiconductor device according to claim 4, comprising the steps of: forming a gate electrode formed on a semiconductor layer of a first conduction type through a gate oxide film, forming a highly doped source region of a second conduction type so as to be adjacent to the gate electrode and a highly doped drain region of the second conduction type at a position apart from said gate electrode, and forming a drift region of the second conduction type formed so as to surround said drain region,

further comprising a step of forming an impurity region of the second conduction type which is more lightly doped than said highly doped drain region and is more highly doped than said drift region so as to surround the vicinity of said highly doped drain region.

12. A method of manufacturing a semiconductor device according to claim 4, comprising the steps of:

forming a first ion-implanted layer by ion-implanting impurities of the second conduction type into a semiconductor layer of the first conduction type and diffusing the implanted impurities into the semiconductor layer, thereby forming a first layer of the second conduction type;

forming a second ion-implanted layer by ion-implanting the impurities of the second conduction type in said first layer of the second conduction type;

forming an oxidation-resistant film in a prescribed

region on said semiconductor layer;

after having formed a resist film in a prescribed region of said semiconductor layer inclusive of said oxidation-resistant film, ion-implanting impurities of the first conduction type using as a mask said oxidation-resistant film and said resist film, thereby forming a third ion-implanted layer in a prescribed region on said semiconductor layer;

after having removed said resist film, LOCOS-oxidizing said semiconductor layer using said oxidation-resistant film as a mask to form a selective oxide film and an isolation film and diffusing the impurities implanted in said second and said third ion-implanted layer into the semiconductor layer, thereby forming a second layer of the second conduction type and a layer of the first conduction type;

thermally oxidizing the surface of said semiconductor layer using as a mask said selective oxide film and said isolation film to form a gate oxide film;

forming a gate electrode to extend from said gate oxide film onto said selective oxide film;

ion-implanting the impurities of the second conduction type using as a mask said gate electrode and said selective oxide film thereby forming a source region of the second conduction type formed to be adjacent to said gate electrode and also forming a drain region of the second conduction type at a position apart from said gate electrode.

13. A method of manufacturing a semiconductor device according to claim 12, wherein the step of forming said second layer of the second conduction type is the same step of forming a channel stopper layer of the second conduction type beneath the isolation film formed between the second conduction channel type MOS transistor thus made and a first conduction channel type MOS transistor which is placed mixedly therewith.